

Burden of household smoking habits on the occurrence of respiratory symptoms among Malaysian adolescents

Abstract

Background: This study aimed to assess the burden of household smoking habits on the occurrence of respiratory symptoms among young adolescents in Malaysia. **Methodology:** The impact of Secondhand Smoke (SHS) exposures on the occurrence of respiratory symptoms was investigated on 234 adolescents (13-14 years old) residing in two states in Malaysia. Adolescents completed a self-administered questionnaire adapted from Global Youth Tobacco survey that comprised of items on socio-demographic and SHS exposures. Respiratory symptoms were assessed using a standard questionnaire of International Study of Asthma and Allergies in Childhood. Hair samples were collected from each adolescent and were analyzed for nicotine via Gas Chromatography-Mass Spectrophotometry with nitrogen detection method. **Result:** The geometric mean of hair nicotine was 0.0184 ± 2.31 ng/mg. The prevalence of current, ever wheeze, nocturnal cough, exercised-induced wheeze and self-reported asthma were 7.69%, 14.1%, 11.5%, 20.5% and 13.7%, respectively. A significant association was found between household smoking status with exercise-induced wheeze (Adjusted Odds Ratio, AOR 1.06; 95%Confidence Interval, CI 0.42-2.66) and nocturnal cough (AOR 14.2; 95%CI 1.60-125). Reported ever wheeze was linked to reported SHS exposure in family's vehicle (AOR 3.27; 95%CI 1.15-9.34). The risk of exercise-induced wheeze was related with postnatal SHS exposure (AOR 2.69; 95%CI 1.13-6.43). **Conclusion:** Respiratory symptoms were mostly affected by household smoking habits. Thus, in an attempt to reduce the repercussion of SHS exposure among younger adolescents, effort should be emphasized in encouraging parents to move from indoor to outdoor smoking far from the vicinity of children.

Keyword: Passive smoking; Household smoking habits; Youth; Respiratory health; Hair nicotine